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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,774	10/24/2003	Jian He	15436.249.35.1	1974

22913 7590 12/28/2005

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EXAMINER

PETKOVSEK, DANIEL J

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AKC

Office Action Summary	Application No. 10/693,774	Applicant(s) HE ET AL	
	Examiner <i>DJP 12/21/05</i> Daniel J. Petkovsek	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on election filed October 10, 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 19-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-14, and 16-18 is/are rejected.
- 7) ☒ Claim(s) 4 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on October 24, 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the election filed October 10, 2005.

Election/Restrictions

1. Applicant's election without traverse of Group I (namely claims 1-18) in the reply filed on October 10, 2005 is acknowledged.
2. Claims 19-36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 10, 2005.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 5-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ono U.S.P. No. 5,473,457.

Ono U.S.P. No. 5,473,457 teaches (ABS; Figs. 1 and 3; column 3, line 31 through column 7, line 14) a system for adjusting losses based upon polarization, the system comprising: a first optical device 1 having an optical output; a second optical device 11 optically coupled to the first optical device; and a polarization controller 9 optically coupled to both said first optical device and said second optical device, said polarization controller minimizing loss by adjusting a

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polarization state of said optical output of said first optical device to reduce a total polarization-dependent loss of said first and second optical devices, which clearly, fully meets Applicant's *claimed* limitations for independent claims 1 and 8.

Regarding claims 5 and 9, and intensity detector 17 measures the loss(es) as such from the coupler.

Regarding claims 6, 7, 10, and 11, the optical devices can be sources, waveguides, couplers, detectors, etc. (see Figs. 1 and 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 12-14, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono U.S.P. No. 5,473,457.

Ono U.S.P. No. 5,473,457 teaches (ABS; Figs. 1 and 3; column 3, line 31 through column 7, line 14) a system for adjusting losses based upon polarization, the system comprising: a first optical device 1 having an optical output; a second optical device 11 optically coupled to the first optical device; and a polarization controller 9 optically coupled to both said first optical device and said second optical device, said polarization controller minimizing loss by adjusting a polarization state of said optical output of said first optical device to reduce a total polarization-dependent loss of said first and second optical devices.

Ono '457 does not explicitly teach that the controller comprises at least one fiber optic *cable* loop contained in a "petal". (claims 2, 3, and 12-14). Ono '457 teaches elements of the control system that are optical fiber loops (8 and 10). A person having ordinary skill in the art at the time the invention was made would have recognized that the only difference between an optical fiber and an optical fiber *cable* would be a protective sheath/jacket. Adding a protective jacket or sheath to the fiber (and containing it within a petal) would have been obvious to a person having ordinary skill in the art at the time the invention was made since protecting an optical fiber would inherently improve its optical coupling and decrease error/loss. It is noted that "petal" can be read on by any protective/enveloping feature.

Regarding claim 16, and intensity detector 17 measures the loss(es) as such from the coupler.

Regarding claims 17 and 18, the optical devices can be sources, waveguides, couplers, detectors, etc. (see Figs. 1 and 3).

Claim Objections

7. Claims 4 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The relevant prior art of record does not teach or reasonably suggest including optical fiber cable loops within a petal in combination with having "said petals can be rotated about an axis that is parallel to a direction of travel of a light signal passing through said first and second optical device to adjust said polarization dependent loss". The prior art of Ono '457 does not teach or reasonably suggest this rotation feature.

Inventorship

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, with respect to the state of the art of polarization controllers that control polarization dependent losses in optical systems: PTO-892 form references B-E.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Petkovsek whose telephone number is (571) 272-2355. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel Petkovsek
December 21, 2005


AKM ENAYET ULLAH
PRIMARY EXAMINER